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SOCIAL FORESTRY SCHEMES AND STRATEGIES OF JHARKHAND AND ITS CAPITAL, RANCHI WITH SPECIAL REFERENCE OF JAN VAN YOJNA

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ABSTRACT

Forests are considered as one of the major sources of livelihood for the average share of population of the state that need to be conserved. Deforestation has accelerated the loss of forest and its resources as well as causing soil erosion, flash floods and climate change affecting sustainability. In country including Jharkhand, there have been continuous efforts to evolve with a scientific approach for sustainable management of forests. Recently, the forest management approach has been addressed through "Social forestry" project started by National Commission on Agriculture the Government of India in 1976. The programme has been started with an aim of reducing the pressure from the notified forests by afforestation of all the unused and fallow lands. The present study aims at understanding the Social forestry scheme and their components in the context of Jharkhand. The study identified the different Social forestry scheme on both notified and outside notified forest land as well as Social forestry on private land i.e. JanVan yojna. The data of afforestation under different schemes for notified and outside notified forest land suggest the increase in forest cover of the state and its capital which is confirmed by the ISFR report of 2017 & 2019 shows increase in forest by 58 km² in state and 0.49 km² in Ranchi district. The JanVan yojna data suggest in decline of area of plantation in the third year of plantation which ultimately results in the decline of the green cover of the state and its capita. So, it is needed to properly implement the yojna related to Social forestry for increase in green cover. These social forestry schemes efforts have been quite effective in regenerating the new forests as well rehabilitation of the degraded forests. However, the initiatives on private land can be sustainable if it is supported sufficient by governing bodies and also involve the peoples participation.

Keywords: Social Forestry, Jan Van Yojna, Jharkhand, Ranchi, Forest Cover, Forest management

Introduction

Jharkhand is one of the biodiversified states of India because of its origin, diverse demographic, physiographic and climatic conditions. The State of Jharkhand was created as the 28th State of the Indian Union by the Bihar Reorganization Act on 15th November 2000. The Jharkhand has a total geographical area of 79,710 km² and lies between 21°58' N to 25°08' N latitude and 83°19' E to 87°55' E longitude. It is surrounded by the state of West Bengal on the eastern side, Chhattisgarh on the western side, Bihar on the northern side and Orissa on the southern side. Whereas, Ranchi district has a total area of 5,097 km² lies between 22°45' N to 23°45' N latitude and 84°45' E to 84°50' E longitude. It is surrounded by Ramgarh, West Singhbhum,

Gumla, Lohardaga, and East Singhbhum. It also share boundary with Purulia district of West Bengal. The geographical area of the state is 79.72 lakh hectares, out of which 22.39 lakh hectares (28.09 %) are under forests; 13.32 lakh hectares (16.71 %) are under non-cultivable land; 1.1 lakh hectares (1.38 %) are under permanent pasture & other grazing land; 3.36 lakh hectares (4.22 %) are under cultivable waste land; 0.93 lakh hectares (1.17 %) are under miscellaneous trees land; 9.62 lakh hectares (12.07 %) are under other than current fallow (upto2-5years); 13.94 lakh hectares (17.49 %) are under current fallow and 15.04 lakh hectares (18.87 %) are under net sown area (Land use statistics, Ministry of Agriculture, GOI, 2008-09) (Fig. 1).

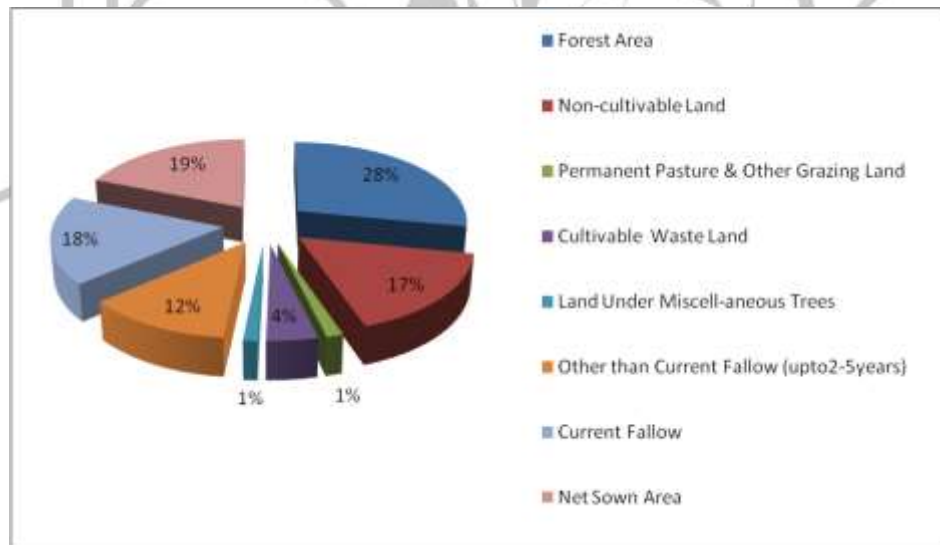


Fig. 1. Land cover statistics of Jharkhand

Forest of Jharkhand and its state capital

Forests cover is around one-third of the earth’s land area (FAO 2015) and are one of the most important natural resources that support in the sustenance of humans.

After agriculture, Forest is the second largest land use covering 21.54% of the total geographical area of the country (FSI 2017). The forest also play an important role in the development of Jharkhand, as a

very noteworthy section of the population is directly or indirectly depend on it for their daily domestic needs. The total forest cover of India is 7,12,249 km² (21.67%) and the area covered by very dense forests (VDF) is 99,278 km² (3.02%), moderately dense forests is 3,08,472 km² (9.39%) and open forests is 3,04,499 km² (9.26%) (Fig. 2) (ISFR 2019). On the other hand, the recorded forest area of Jharkhand is 23,611 km² (29.62%) which is greater than the country's percentage forest cover. The reserved, protected, and unclassified forests are 18.58%, 81.28% and 0.14% respectively. The total forests and tree cover constitutes about 33.21% of the total geographical area of the state (ISFR 2019) which is equivalent to the required 33%

benchmark as per the National Forest Policy 1988. According to ISFR 2017, the recorded forest area of the state was 23,605 km² (29.61%) and the change in the forest cover area at present with respect to ISFR 2017 is 58 km² resembling the change of 0.25%. However, the recorded forest area of Ranchi district is 1,164.49 km² (22.85%) and the area covered by very dense forests (VDF) is 63.04 km² (1.24%), moderately dense forests is 364.19 km² (7.14%) and open forests is 737.26 km² (14.46%) (Table 1 & Fig. 3) (ISFR 2019). As per ISFR 2017 report, the recorded forest area of Ranchi district was 1,164 km² (22.85%) and the change in the forest cover area at present with respect to ISFR 2017 is 0.49 km² (Fig. 4).

Table 1. Distributions of Forest cover of Jharkhand and Ranchi

Class	Forest Area of Jharkhand (in sq km)	% of Geographical Area	Forest Area of Ranchi (in sq km)	% of Geographical Area
VDF	2,603.20	3.27	63.04	1.24
MDF	9,687.36	12.15	364.16	7.14
OF	11,320.85	14.20	737.26	14.46
Total	23,611.41	29.62	1164.49	22.85
Scrub	688.05	0.86	-	-

VDF Very Dense Forest, MD Moderately Dense Forest, OP Open Forest

Source ISFR (2019)

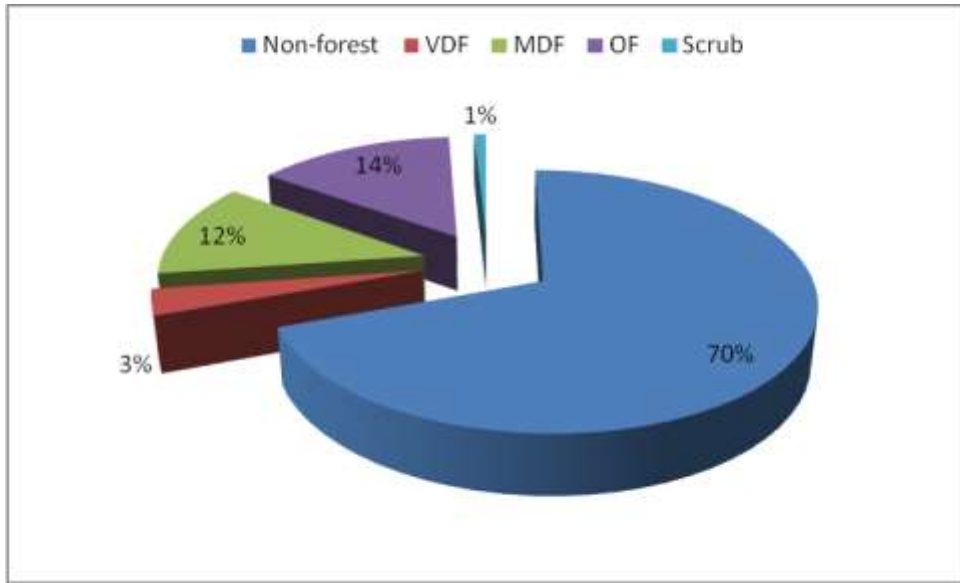


Fig 2. Forest cover of Jharkhand

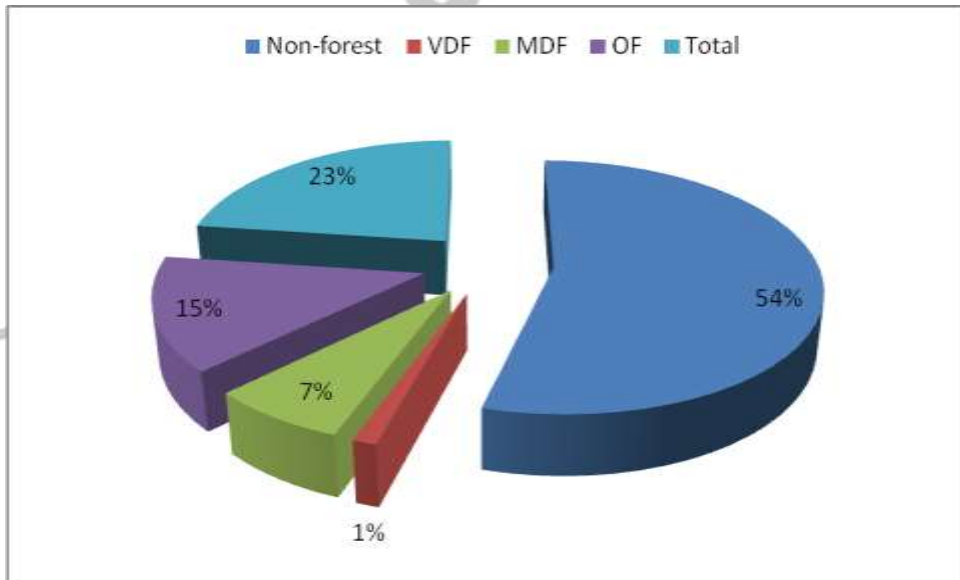


Fig 3. Forest cover of Ranchi

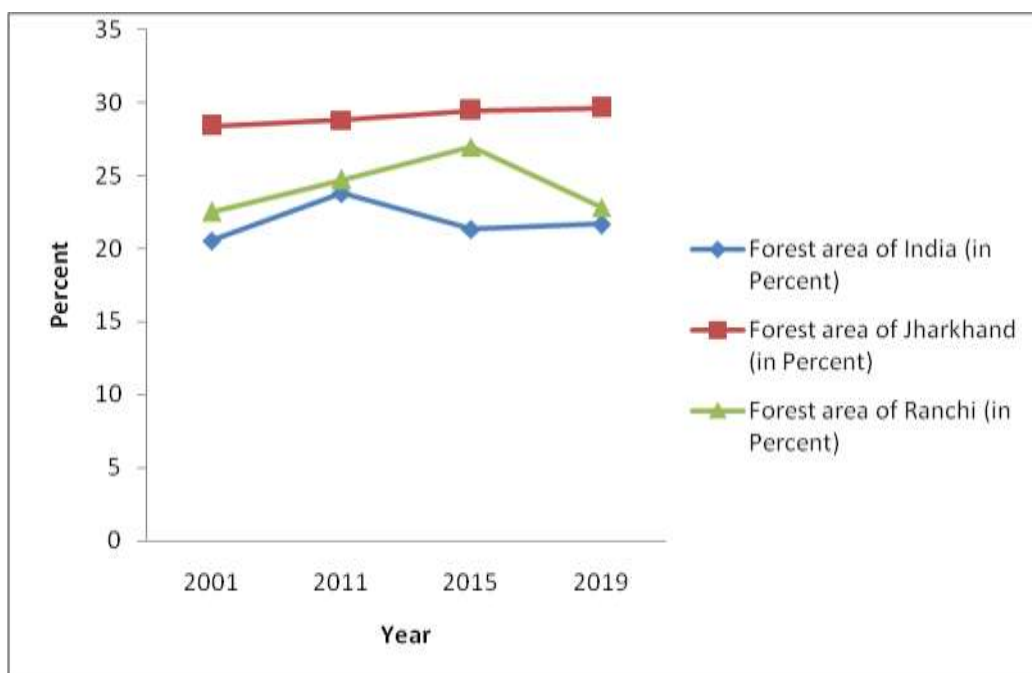


Fig 4. Forest cover area (in percent of geographical area) of India, Jharkhand and Ranchi during 2001-2019

Forests are the foremost source of fodder, timber, fuel wood, gum, tannin, and a varied range of curative herbs. Forests play an important role in the economic, cultural and social lives and supporting rural livelihoods and food security in Jharkhand. However, with the growing human and livestock population, supply of vital produces from forests were inadequate to meet the needs; this resulted in overexploitation and deforestation of the forests (Westphal 2003). Simultaneously, forest are under human induced pressures affecting sustainability (Allen et al., 2010; Bonan, 2008; Dale et al., 2001; Kramer et al., 2000; Kumar et al., 2007; Savita & Kushwaha, 2018; Savita et al., 2018; Thuiller, 2007; Watson et al., 1996). This has called attention of planners to formulate strategies to achieve the "Sustainability,"

defined as "the maintenance of natural capital" (Morelli, 2011).

Social Forestry: forest management in Jharkhand

Above circumstances emerged the concepts of social forestry and participatory forest management. Thus, in 1976 the National Commission on Agriculture the Government of India started a 'Social Forestry' programme. The term 'Social Forestry, for the first time was used by the Forest Scientist Westoby, at the 9th Common Wealth Forestry congress held in 1968 in New Delhi. He defined that, "Social Forestry, is a forestry which aims at producing flow of protection and recreational benefits for the Community". Social Forestry is an idea and a mission which aims at ensuring ecological,

economic and social security to the people, particularly to the rural masses especially by involving the beneficiaries right from the planning stage to the harvesting stage (Siddiqui 2002). Social forestry projects aimed at reducing the pressure from the notified forests by afforestation of all the unused and fallow lands including village common lands, the Government wasteland and Panchayat lands. Tree plantations alongside roads, canals, railways, etc., reforestation or rehabilitation of degraded forest areas as well as farm and urban forestry (tree plantation on private land).

Social forestry in notified forest land of Jharkhand

After the existence of the state, government of Jharkhand using idea of social forestry has carried out the different schemes of plantation on both notified forest area as well as outside notified forest area to increase the forest cover of the state and to reduce the pressure from the notified forests.

Afforestation in the notified forest area of the state are undertaken using different schemes such as rehabilitation of degraded forest areas, afforestation cum soil conservation, plantation cum water conservation, plantation of fast growing plants and plantation at the point of origin of rivers. All the schemes under notified area are for 7 years from the work allotment year, in the first year of the schemes, pit were made for plantation followed by plantation in the 2nd year

followed by maintenance of the plants for 5 more years after plantation.

In rehabilitation of degraded forest areas scheme, there is provision of plantation of 1000 plants per hectare and spacing between the plants are either 3m x 3m or 2m x 2m or 3m x 2m according to availability of the spaces. The number of plants can be planted in plantation of fast growing plants scheme is 2500 plants per hectare and spacing is 2m x 2m. The total number of plants planted in afforestation cum water conservation scheme is 1000 plants per hectare and 1666 plants per hectare in each afforestation cum soil conservation scheme as well as plantation on forest land whereas, the spacing between the plants in all the three schemes is 3m x 2m.

The afforestation of notified forest area of the state under various schemes during year 2016-17 were carried out in area of 3196.63 hectare for 31.96 lakhs plants, 1391 hectare for 23.17 lakhs plants and 1505 hectare for 37.62 lakhs plants under rehabilitation of degraded forest areas, afforestation cum soil conservation and plantation of fast growing plants, respectively, whereas, the plantation under none of scheme were carried out in the state capital Ranchi. Under social forestry scheme of the state, sisal and sal plantation were done in area of 100 hectare for plantation of 6.15 lakh plants and 30 hectare for plantation of 0.49 lakh plants, respectively (Table 2).

During year 2017-18, the work achieved for the state under rehabilitation of degraded forest areas, afforestation

cum soil conservation and plantation of fast growing plants were for area of 6402 hectares for plantation of 64.02 lakh plants, 3492 hectares for plantation of 58.18 lakh plants and 1220 hectares for plantation of 30.50 lakh plants, respectively. However, advance work progress of the in the year were 6937 hectares area plantation by 69.37 lakh plants in rehabilitation of degraded forest areas, 3648 hectares area plantation by 60.77 lakh plants in afforestation cum soil conservation and 825 hectares area plantation by 20.63 lakh plants in plantation of fast growing plants. The only scheme i.e. rehabilitation of degraded forest areas scheme work progress was done in Ranchi district in area of 250 hectare (includes 50 hectare area of Chatra Village of Angara Block, 50 hectare area of Patratu Village of Kanke Block, 50 hectare area of Mahru Village of Bedo Block, 40 hectare area of Geswe Village of Burmu Block and 60 hectare area of Sisai Village of Mandar Block) for plantation of 2.5 lakh plants (Table 2).

In 2018-19, 5910 hectares area plantation by 59.09 lakh plants for rehabilitation of degraded forest areas, 4147 hectares area plantation by 69.09 lakh plants in afforestation cum soil conservation scheme and 1610 hectares area plantation by 40.25 lakh plants were planted in fast growing plants scheme. Sisal plantation were done for area of 100 hectares for plantation of 6.15 lakh plants Whereas, the advance work under rehabilitation of degraded forest areas, afforestation cum soil conservation and plantation of fast growing plants were for

area of 3000 hectares for plantation of 30.00 lakh plants, 5000 hectares for plantation of 83.30 lakh plants and 500 hectares for plantation of 12.50 lakh plants, respectively. The work progress of the year 2017-18 of Ranchi district for plantation of 2.5 lakh plants in 250 hectare area was completed in year 2018-19 (Table 2).

During year 2019-20, the work achieved under rehabilitation of degraded forest areas, afforestation cum soil conservation and plantation of fast growing plants were for area of 21102.31 hectares for plantation of 211.02 lakh plants, 14085.18 hectares for plantation of 234.65 lakh plants and 5440 hectares for plantation of 136.00 lakh plants, respectively. The advance work progress in the year were 4613 hectares area plantation by 46.13 lakh plants in rehabilitation of degraded forest areas, 2480 hectares area plantation by 41.31 lakh plants in afforestation cum soil conservation, 225 hectares area plantation by 5.62 lakh plants in plantation of fast growing plants and 250 hectares area plantation by 4.16 lakh plants in plantation at the point of origin of rivers. However, advance work progress of the Ranchi district under various scheme such as rehabilitation of degraded forest areas with 1.00 lakh plantation in 100 hectares area (includes 35 hectare area of Hahap Village of Khijri Block, 30 hectare area of Paika Village of Angara Block and 35 hectare area of Kanka Village of Burmu Block), afforestation cum soil conservation and plantation with 3.41 lakh plants in 205 hectares area (includes 35 hectare area of

each Jaru & Soso Village of Angara Block, 65 hectare area of Chiruwa Village of Kanke Block and 35 hectare area of each Usku & Hutup Village of Burmu Block) and afforestation cum water conservation were for plantation of 1.00 lakh plants in 100 hectares area (includes 28 hectare area of Pusu Village of Ormanjhi Block, 29 hectare area of Baridih Village of Bedo Block and 43 hectare area of Nawadih Village of Burmu Block) (Table 2).

Social forestry in outside notified forest land of Jharkhand

Afforestation in the outside notified forest area of the state are undertaken using different schemes includes Bamboo gabion plantation, iron gabion plantation and plantation on rivers bank. All the gabion plantation schemes under outside notified are for 4 years except plantation on rivers bank is for 7 years. In the first year of the schemes, pit were made for plantation followed by plantation in the 2nd year consecutively maintenance of the plants were carried for more 2 years in bamboo gabion plantation and iron gabion plantation and 5 years in plantation on rivers bank.

In Bamboo gabion plantation scheme, area of the each gabion is 6'6"x2'6"x2'6" and spacing between two row is 3 m whereas plant to plant distance is 5m. The area of each gabion in iron gabion plantation scheme is 5 inch x 2 inch x 2 inch and row to row distance is 3 m and plant to plant distance is 5m. However, plantation on rivers bank scheme done with distance between the plants is 2m x

3m. The plantation in these schemes can be done with the average plant height of 4-5 feet and plants that can be planted are Arjun, Senwal, Karanj, Shisham, Jamun, Bael, Tamarind, Ber, Banyan, Pipal, Neem, Jungli Jalebi and Gamhar.

During year 2017-18, the afforestation outside the notified forest area of the state was carried out under various schemes. The total of 2.0751 lakhs plants were planted in bamboo gabion plantation scheme, 0.90 lakhs plants were planted on rivers bank for 45 km and 7.03 lakhs plants were planted on non-forest land for 442 hectare. The advance work progress of plantation for schemes such as bamboo gabion plantation, plantation on rivers bank and plantation on non-forest land were 1.5 lakh plants, 3.6 lakh plants for 60 km and 6.66 lakh plants for 400 hec respectively. However, advance work progress of the Ranchi district for the year under plantation on rivers bank scheme was 0.30 lakh plants were planted for 5 km area on the bank Swarnarekha River comprises 3km area of Mahilong and 2 km area of Bedo (Table 3).

The afforestation during year 2018-19 were carried out on 43390 gabion for 0.434 lakhs plants and 0.019 gabion for 1900 lakhs plants under bamboo gabion plantation and iron gabion plantation, respectively. The plantation on rivers bank was done on the area of 134.61 km for 8.077 lakh plants and plantation on non-forest land was done on 461 hectare for 7.680 lakh plants. The advance work progress in the year were for 12000 gabion with 0.120 lakh plants in bamboo gabion

plantation, 500 gabion with 0.005 lakh plants in iron gabion plantation and 8.220 lakh plants in 274 km area under plantation on rivers bank scheme. Whereas, the plantation in the Ranchi district during the year was done for 4350 gabion with 0.0435 lakh plants under bamboo gabion plantation and 0.30 lakh plantation for 5 km area under plantation on rivers bank. However, the advance work progress of the district under plantation on rivers bank scheme was 0.45 lakh plants were planted for 15 km area on the rivers bank, out of which 5 km area on the bank of Nalkari River from Chandra to Patratu Bridge and 10 km on the bank of Swarnarekha River from Namkum to Lalganj area (Table 3).

During year 2019-20, the work achieved in the state under bamboo gabion plantation and iron gabion plantation and plantation on river banks were for 25000 gabion with 0.25 lakh plants, 4000 gabion with 0.04 lakh plants and 8.43 lakh plants planted on area of 281 km, respectively. The advance work progress of the state includes 9.15 lakh plants plantation in area of 305 km under plantation on river banks. The work achieved for the Ranchi district under bamboo gabion plantation and iron gabion plantation and plantation on river banks were for 5000+1140 gabion with 0.0614 lakh plants, 4000 gabion with 0.04 lakh plants and 0.66 lakh plants planted on area of 22 km includes 7 km of current year plantation and 15 km of previous year work. However, the advance work progress of the state includes plantation of 0.0614 lakh plants in 6140 gabion under bamboo

gabion plantation, 0.04 lakh plants in 4000 gabion under iron gabion plantation and 0.51 lakh plants plantation in area of 17 km under on river banks includes 7 km on the bank of Jumar river (2 km) & Harmu river (5 km) completed in same year and 10 km on the bank of Jumar river of Kanke block proceeded to the next year (Table 3).

Social forestry on Private land: JanVan yojana

Keeping farm forestry concept in the view and for expansion of forest cover area of the state, the Government of Jharkhand has launched a welfare scheme "Jan Van Yojana" in the year 2016 (Resolution No. 5965, Government of Jharkhand and dt-27.11.2015). The major objectives of the scheme is to increase the green cover and maintain the environmental balance, conservation of the underground water by plantation, to reduce the pressure on notified forest by planting the trees in the private land, to increase the farmers income as well as to increase forest cover in the state by peoples participation (CM JanVan Yojana Booklet, Government of Jharkhand, 2016). Under the scheme, there is a provision of plantation of the 445 numbers of timbers yielding plant species viz. Rosewood, Teak, Ghamar, Mahogany, Clonal Eucalyptus and Acacia and 160 numbers of fruit yielding plant species viz. Kalmi Mango, Guava, Gooseberry, Litchi, Jackfruit and Beal in one acre of land with a prescribed distance in block plantation or linear afforestation on the ridge of the field. The minimum and maximum limit of planting area for a single beneficiary is 0.5

and 50 acres, respectively. 75% of the total cost incurred over the plantation and their maintenance are borne by the State Government/Forest Department for the first 3 years of the plantation (Resolution no-2005, dated-14.05.2018, GOJ, DoFECC).

The total number of the application approved (beneficiaries) after receiving for availing the benefits of the JanVan yojana during year 2016-17 is 604 for Jharkhand and 74 for Ranchi, in year 2017-18 is 315 for Jharkhand and 12 for Ranchi, in year 2018-19 is 337 for Jharkhand and 63 for Ranchi and in year 2019-20 is 301 for Jharkhand and 36 for Ranchi (Table 4). The numbers of beneficiaries were reduced in third year of plantation in each respective year. The reduced number of beneficiaries in third year for year 2016-17, 382 in Jharkhand and 24 in Ranchi; year 2017-18, 5 in Jharkhand and 4 in Ranchi; for year 2018-19, 24 in Ranchi.

The total area of plantation in the state under JanVan yojana in different years were 1477.45 acre, 757.13 acre, 991.35 acre and 882.73 acre in year 2016-17, 2017-18, 2018-19 & 2019-20, respectively, which was reduced to 1054.52 acre and 16.55 acre in the third year of plantation for year 2016-17 and 2017-18. However, the total area of plantation in the state capital, Ranchi was 147.61 acre in 2016-17, 34.22 acre in 2017-18, 104.64 acre in 2018-19 and 38.07 in 2019-20 which was reduced in its third year to 43.03 acre, 7.0 acre and 45.83 acre in year 2016-17, 2017-18 & 2018-19, respectively. The total numbers of timber yielding plants planted in the Jharkhand

state under scheme were 285343, 122158, 164046 & 2437 and fruit yielding plants were 57186, 26680, 124344 & 57362 in 2016-17, 2017-18 & 2018-19, respectively. The numbers of timber yielding plants were reduced to 16121 planted in 2016-17 and 2379 planted in 2017-18 whereas fruit yielding plants were reduced to 18014 planted in 2016-17 and 8947 planted in 2017-18 in third year of their plantation. However, The total numbers of timber yielding plants planted in the Ranchi were 16121, 2379, 9750 & 3762 and fruit yielding plants were 13850, 1302, 11217 & 7703 in 2016-17, 2017-18 & 2018-19, respectively. The numbers of timber yielding plants were reduced to 3052 planted in 2016-17, 423 planted in 2017-18 and 2437 planted in 2018-19 whereas fruit yielding plants were reduced to 2399 planted in 2016-17, 823 planted in 2017-18 and 1850 planted in 2017-18 in its third year of plantation (Table 4). The decline in the numbers of the planted at beneficiaries' private land after the plantation year to scheme duration results in the decline of area of plantation which ultimately results in the decline of the green cover of the state and its capital which was one of the important objective of the scheme. So, it is necessary to properly implement the scheme for better achievements of its objectives such as increase in green cover of the state.

Conclusion

In conclusion, forests are the foremost source of fodder, timber, fuel wood, gum, tannin, and a varied range of curative herbs. Forests play an important role in the economic, cultural and social lives and supporting rural livelihoods and food security in Jharkhand, as a very noteworthy section of the population is directly or indirectly depend on it for their daily domestic needs. The growing population, relying on forests produce resulted in the overexploitation and deforestation of the forests. Nevertheless, the depletion of forest cover and the forest products around the world create an expanding opportunity for social forestry to achieve the "Sustainability. It can be concluded that afforestation and social forestry programme are initiated to bring environmental as well as social change in the society. A properly implemented and managed social forestry programme can meet the necessities of people, besides generating additional income. A well-executed and accomplished Social Forestry programme can play important role in uplifting village life along with enhancing environmental sustainability.

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Table 2. Afforestation on Notified Forestland of Jharkhand and its capital, Ranchi (Source: Annual Report, DoFECC, Jharkhand, 2019-20; 2018-19, 2017-18 & 2016-17 and Ranchi Forest Division office, Ranchi)

Description of work	2019-20							
	Jharkhand				Ranchi (Ranchi Forest Division)*			
	Achievement		Advance work progress		Achievement		Advance work progress	
	Area (in hectare)	No. of plantation (in lakhs)	Area (in hectare)	No. of plantation (in lakhs)	Area (in hectare)	No. of plantation (in lakhs)	Area (in hectare)	No. of plantation (in lakhs)
Rehabilitation of degraded forest areas	21102.31	211.02	4613	46.13	-	-	100	1.00
Afforestation cum soil conservation	14085.18	234.65	2480	41.31	-	-	205	3.41
Plantation cum water conservation	-	-	-	-	-	-	100	1.00
Plantation of fast growing plants	5440	136.00	225	5.62	-	-	-	-
Plantation at the point of origin of rivers	-	-	250	4.16	-	-	-	-
	2018-19							
Rehabilitation of degraded forest areas	5910	59.09	3000	3.000	250	2.50	-	-
Afforestation cum soil conservation	4147	69.09	5000	83.30	-	-	-	-
Plantation cum water conservation	-	-	-	-	-	-	-	-
Plantation of fast growing plants	1610	40.25	500	12.50	-	-	-	-
Sisal plantation	100	6.150	50	3.07	-	-	-	-
	2017-18							
Rehabilitation of degraded forest areas	6402	64.02	6937	69.37	-	-	250	2.50

Afforestation cum soil conservation	3492	58.18	3648	60.77	-	-	-	-
Plantation cum water conservation	-	-	-	-	-	-	-	-
Plantation of fast growing plants	1220	30.50	825	20.63	-	-	-	-
Sisal plantation	100	6.15	100	6.15	-	-	-	-
Sal plantation	30	0.49	120	1.99	-	-	-	-
2016-17								
Rehabilitation of degraded forest areas	3196.63	31.96	6307	63.07	-	-	-	-
Afforestation cum soil conservation	1391	23.17	3317	55.26	-	-	-	-
Plantation cum water conservation	-	-	-	-	-	-	-	-
Plantation of fast growing plants	1505	37.62	750	18.75	-	-	-	-
Sisal plantation	100	6.15	100	6.15	-	-	-	-
Sal plantation	30	0.49	30	0.49	-	-	-	-

*Structured on the basis of data collected from Ranchi Forest Division Office, Ranchi

Table 2. Afforestation on Outside Notified Forestland of Jharkhand and its capital, Ranchi (Source: Annual Report, DoFECC, Jharkhand, 2019-20; 2018-19, 2017-18 & 2016-17 and Ranchi Forest Division office, Ranchi)

Description of work	2019-20							
	Jharkhand				Ranchi (Ranchi Forest Division)*			
	Achievement		Advance work progress		Achievement		Advance work progress	
	Gabion or km	No. of plantation (in lakhs)	Gabion or km	No. of plantation (in lakhs)	Gabion or km	No. of plantation (in lakhs)	Gabion or km	No. of plantation (in lakhs)
Bamboo gabion plantation	25000	0.250	-	-	5000+1140	0.0614	6140	0.0614
Iron gabion plantation	4000	.040	-	-	4000	0.04	4000	0.04
Plantation on rivers bank	281 km	8.43	305 km	9.15	15+2+5	0.66	17	0.51
2018-19								
Bamboo gabion plantation	43390	0.434	12000	0.120	4350	0.04350	4350	0.04350
Iron gabion plantation	1900	0.019	500	0.005	-	-	-	-
Plantation on rivers bank	134.61 km	8.077	274	8.220	5 km	0.30	15 km	0.45
Plantation on non-forest land	461 hectare	7.680	-	-	-	-	-	-
2017-18								
Bamboo gabion	-	2.0751	-	1.50	-	-	-	-

plantation								
Iron gabion plantation	-	-	-	-	-	-	-	-
Plantation on rivers bank	45 km	0.90	60 km	3.60	-	-	5 km	0.30
Plantation on non-forest land	422 hectare	7.03	400 hec	6.66	-	-	-	-

*Structured on the basis of data collected from Ranchi Forest Division Office, Ranchi

Table 4. Detail of Plantation under JanVan Yojana of Jharkhand and its capital, Ranchi (Source: Social Forestry Division, Ranchi)

Sl. No.	2016-17				2017-18				2018-19				2019-20			
	1 st Year		3 rd Year		1 st Year		3 rd Year		1 st Year		3 rd Year		1 st Year		3 rd Year	
	JKD	RNC	JKD	RNC	JKD	RNC	JKD	RNC	JKD	RNC	JKD	RNC	JKD	RNC	JKD	RNC
No. of Beneficiaries*	604	74	382	24	315	12	5	4	337	63	NA	24	301	36	NA	NA
Area for Plantation (in Acre)	1477.45	147.61	1054.52	43.03	757.13	34.22	16.55	7.0	991.35	104.64	NA	45.83	882.73	38.07	NA	NA
No. of Fruit Yielding Crops	57186	13850	18014	2399	26680	1302	8947	823	124344	11217	NA	1850	57362	7703	NA	NA
No. of Timber Yielding Crops	285343	16121	117377	3052	122158	2379	29455	423	164046	9750	NA	2437	98116	3762	NA	NA

*Structured on the basis of data collected from Social Forestry Division Office, Ranchi